

In the Claims:

Please add new claims 15-17, as shown below. For the Examiner's convenience, all pending claims are reproduced below.

1. (Original) A tool for cleaning the surface of a workpiece, the tool being able to accomplish the following steps:

position a workpiece with respect to a flame torch;  
inject a reactive precursor into the flame torch;  
translate at least one of the workpiece and the flame torch; and  
use reactive atom plasma processing to clean the surface of the workpiece with the flame torch.

2. (Original) A tool for shaping the surface of a workpiece, comprising:

means for positioning a workpiece with respect to a flame torch;  
means for injecting a reactive precursor into the flame torch;  
means for translating at least one of the workpiece and the flame torch; and  
means for using reactive atom plasma processing to clean the surface of the workpiece with the flame torch.

3. (Original) A tool for cleaning the surface of a workpiece, comprising:

a flame torch; and  
a translator that can translate at least one of a workpiece and said torch;  
wherein said torch is configured to receive a reactive precursor capable of chemically combining with a contaminant on the surface of the workpiece to produce a gas and leave the surface.

4. (Original) A tool according to claim 3, wherein:

said flame torch is adapted to generate a hydrogen-oxygen flame.

5. (Original) A tool according to claim 3, wherein:

said flame torch is adapted to produce a stream of atomic radicals that can be used to modify a surface.

6. (Original) A tool according to claim 5, wherein:

said flame torch produces a stream that can modify a surface by a process selected from the group consisting of cleaning, passivating, and activating.

7. (Original) A tool according to claim 6, wherein:

said flame torch is further adapted to produce a stream of atomic radicals that can modify a surface by a process selected from the group consisting of shaping, polishing, etching, planarizing, and redepositing.

8. (Original) A tool according to claim 3, further comprising:

a flame suppressor in said flame torch.

9. (Original) A tool according to claim 3, wherein:

said flame torch includes at least one tube to receive process gas.

10. (Original) A tool according to claim 9, wherein:

said flame torch includes at least one tube to receive process gas selected from the group consisting of oxygen and hydrogen.

11. (Original) A tool according to claim 3, wherein:

said flame torch has a central tube for receiving a reactive precursor.

12. (Original) A tool according to claim 11, wherein:

said flame torch has a central tube for receiving a reactive precursor selected from the group consisting of  $\text{CF}_4$ ,  $\text{O}_2$ ,  $\text{Cl}$  and  $\text{NH}_3$ .

13. (Original) A tool according to claim 3, wherein:

said flame torch has a chemically inert metal tip.

14. (Original) A tool according to claim 3, wherein:

said translator is a rotational stage for supporting the workpiece and rotating the workpiece with respect to the flame torch.

15. (New) A tool according to claim 3, wherein:

said flame torch includes a multi-nozzle burner.

16. (New) A tool for cleaning the surface of a workpiece, comprising:

a flame torch adapted to receive a reactive precursor;

wherein said flame torch is capable of fragmenting the reactive precursor into a stream of atomic radicals that can be used to clean a surface.

17. (New) A tool according to claim 16, wherein:

said flame torch is further capable of fragmenting the reactive precursor into a stream of atomic radicals that can be used to modify a surface.